

§Appl. No. 09/381,903
Amdt. dated August 25, 2004
Reply to Non-Compliant Amendment of August 3, 2004

Listing of Claims:

Claim 1 (cancelled)

Claim 2 (cancelled)

Claim 3 (cancelled)

Claim 4 (cancelled)

Claim 5 (cancelled)

Claim 6 (cancelled)

Claim 7 (cancelled)

Claim 8 (currently amended) A modified recombinant gramineae pollen allergen wherein at least one of the T-cell reactive regions 16-42, 135-149 and 180-206 of the Ph1 p 5b polypeptide of SEQ ID NO: 87, consisting of a total of 265 amino acids, is not altered.

Claim 9 (currently amended) A modified recombinant gramineae pollen allergen according to claim 8, selected from the group consisting of:

PM1	(N ³² D, D ⁴⁹ L, K ⁵⁰ A)	(SEQ ID NO. 88)
PM2	(D ⁴⁹ L, K ⁵⁰ A)	(SEQ ID NO. 89)
PM3	(A ¹³ C)	(SEQ ID NO. 90)
DM1	(Δ K ⁵⁰ P ^{Δ132} , D ⁴⁹ L)	(SEQ ID NO. 91)
DM2	(Δ F ⁵¹ - G ¹⁷⁸ , D ⁴⁹ - L, K ⁵⁰ - A)	(SEQ ID NO. 92) and
DM3	(Δ A ¹⁵⁴ - T ¹⁷⁷ , A ²²⁰ T)	(SEQ ID NO. 93).

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Claim 10 (withdrawn) Process for preparing modified recombinant allergens according to Claim 1 and/or their physiologically harmless salts or solvates, characterized in that different variants of the polymerase chain reaction (PCR) are used.

Claim 11 (currently amended) A pharmaceutical preparation for treating an IgE-mediated grass pollen allergy comprising at least one modified recombinant allergen according to claim 8 and a pharmaceutically acceptable carrier.

Claim 12 (withdrawn) Process for producing pharmaceutical preparations, characterized in that at least one modified recombinant allergen according to Claim 1 and/or one of their physiologically harmless salts or solvates are brought into a suitable dosage form together with at least one solid, liquid or semiliquid carrier substance or auxiliary substance.

Claim 13 (currently amended) A method of immunospecific therapy ~~of for grass pollen~~ allergies, comprising administering to a patient in need thereof a pharmaceutical composition comprising a modified recombinant gramineae pollen allergen according to claim 8 and a pharmaceutically acceptable carrier.

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Claim 14 (currently amended) A method of immunospecific therapy of for grass pollen allergies, comprising administering to a patient in need thereof a modified recombinant gramineae pollen allergen according to claim 8.

Claim 15 (currently amended) The pharmaceutical preparation according to claim 11 comprising a physiologically compatible salt or solvate of said recombinant modified gramineae pollen allergen.

Claim 16 (previously presented) The pharmaceutical preparation according to claim 11 comprising an additional active compound.

Claim 17 (currently amended) A modified recombinant gramineae pollen allergen having a region which corresponds to at least one of the T-cell reactive regions 16-42, 135-149, and 180-206 of the Ph1 p 5b polypeptide of SEQ ID NO: 87, consisting of a total of 265 amino acids, wherein at least one of said regions is not altered.

Claim 18 (currently amended) A modified recombinant gramineae pollen allergen of claim 17, wherein a combination of said regions is present and is not altered.

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Claim 19 (currently amended) A modified recombinant gramineae pollen allergen according to claim 17, selected from the group consisting of:

PM1	(N ³² D, D ⁴⁹ L, K ⁵⁰ A)	(SEQ ID NO. 88)
PM2	(D ⁴⁹ L, K ⁵⁰ A)	(SEQ ID NO. 89)
DM1	(Δ K ⁵⁰ P ^{Δ132} , D ⁴⁹ L)	(SEQ ID NO. 91) and
DM3	(Δ A ¹⁵⁴ - T ¹⁷⁷ , A ²²⁰ T)	(SEQ ID NO. 93).

Claim 20 (currently amended) The modified recombinant gramineae pollen allergen according to claim 8, wherein said modification refers to a wild type polypeptide that is altered by a substitution.

Claim 21 (currently amended) The modified recombinant gramineae pollen allergen according to claim 17, wherein said modification refers to a wild type polypeptide that is altered by a deletion.

Claim 22 (currently amended) An The gramineae pollen allergen of claim 8, wherein a combination of said regions is present and is not altered.

Claim 23 (withdrawn) A method for manufacturing an allergen showing a reduced or eliminated reactivity with IgE antibodies and a retained reactivity with T-lymphocytes, comprising:

- determining the amino acid sequence of a natural protein allergen,

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- creating a series of overlapping oligopeptides, derived from the sequence of of the allergen by methods known in the art,
- obtaining T-cell clones from patients allergic to said allergen,
- screening said oligopeptides for their ability to react with and stimulate said T-cell clones, and
- creating mutants of said allergen while leaving unaltered one or more of the T-cell reactive sequence regions.

Claim 24 (currently amended) A method of immunospecific therapy of for grass pollen allergies, comprising administering to a patient in need thereof a modified recombinant allergen according to claim 9 which is DM1 or DM3.

Claim 25 (currently amended) A method of immunospecific therapy of for grass pollen allergies, comprising administering to a patient in need thereof a modified recombinant gramineae pollen allergen according to claim 17.

Claim 26 (currently amended) A method of immunospecific therapy of for grass pollen allergies, comprising administering to a patient in need thereof a modified recombinant gramineae pollen allergen according to claim 19 which is PM1 or PM2.

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Claim 27 (currently amended) A method of immunospecific therapy ~~of~~ for grass pollen allergies, comprising administering to a patient in need thereof a modified recombinant gramineae pollen allergen according to claim 20.

Claim 28 (currently amended) A method of immunospecific therapy ~~of~~ for grass pollen allergies, comprising administering to a patient in need thereof a modified recombinant gramineae pollen allergen according to claim 21.

Claim 29 (currently amended) A method of immunospecific therapy ~~of~~ for grass pollen allergies, comprising administering to a patient in need thereof a modified recombinant gramineae pollen allergen according to claim 22.

Claim 30 (New) A gramineae pollen allergen of claim 8, which is a group 5 gramineae pollen allergen.

Claim 31 (New) A gramineae pollen allergen of claim 17, which is a group 5 gramineae pollen allergen.